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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,405	09/24/2003	Susan I. Shetso	1001.2206101	7930
28075 7590 03/24/2010 CROMPTON, SEAGER & TUFTE, LLC 1221 NICOLLET AVENUE SUITE 800 MINNEAPOLIS, MN 55403-2420				
EXAMINER				
BOUCHELLE, LAURA A				
ART UNIT		PAPER NUMBER		
3763				
MAIL DATE		DELIVERY MODE		
03/24/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/670,405

**Applicant(s)**

SHELSON, SUSAN I.

**Examiner**

LAURA A. BOUCHELLE

**Art Unit**

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

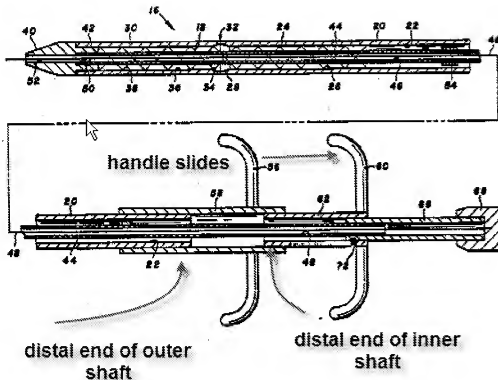
**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 11-17, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyn et al (US 5201757) in view of Frid et al (US 6159228) in view of Sielaff et al (US 4016864). Heyn discloses a device for deploying a stent comprising an outer shaft 58, an inner shaft 62 slidably disposed within and concentric with the outer shaft, comprising a proximal end and a distal end configured to engage the outer shaft distal end, wherein the outer shaft distal end is positioned distal to the inner shaft distal end and the outer shaft is slidable relative to the inner shaft between a first position wherein the distal end of the inner shaft is position within the lumen of the outer shaft and spaced from the distal end of the outer shaft (fig. 1) and a second position in which the distal end of the inner shaft engages the distal end of the outer shaft (col. 6, lines 23-28, not shown in figs). Fig. 1 is annotated below.



3.

A rigid inner member 66 is disposed inside the inner shaft 62, the entire length of the rigid inner member is coupled to the inner shaft. See Fig. 1. Heyn discloses a exterior tube 20 couplet to the distal end of the outer shaft, catheter 44 coupled to and extending from the rigid inner member distal end, the distal end of the catheter comprising a mounting region for a treatment element, the treatment element being covered by the distal en of the sheath in the first position (fig. 1) and uncovered in the second position (see Fig.3) (col. 6, lines 6-35). The inner and outer shafts include gripping portions 60, 56. The distal end of the catheter 44 is covered by the sheath in the first position and at least partially uncovered in the second position (see Fig. 3).

4. Claims 11, 19, 20 differ from Heyn in calling for the distal end of the rigid inner member to extend beyond the distal end of the inner shaft. Frid teaches a device for deploying a stent comprising a rigid pusher tube 11 that is attached to a flexible pusher 10, the rigid pusher

extending all the way through an outer shaft member 7 (see fig. 3). The rigid pusher provides axial strength to allow the distal end of the members to be moved without buckling. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to extend the rigid member of Heyn to extend further as taught by Frid to provide more axial strength to the flexible member to ensure that relative movement on the proximal end of the device translates into relative movement of the distal end to reliably deploy the stent.

5. Claims 11, 19, 20 also differ from the teachings above in calling for the exterior tube to be stepped. Sielaff teaches a catheter including an exterior tube 7 that is coupled to an outer member 8a. The tube is stepped, having a smaller diameter portion 7b and a larger diameter portion 7a, the smaller diameter making the device suitable for insertion into a vessel, and the larger diameter allowing for a secure connection to the handle member 8a (col. 4, lines 31-39). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Heyn to include a stepped outer tube as taught by Sielaff to provide a tube that has a diameter suitable for insertion into a vessel while having a distal end that is capable of being securely attached to another member.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable Heyn in view of Frid in view of Sielaff in view of DiCaprio et al (US 6176843). Claim 18 differs from the teachings above in view of Gunderson in calling for a valve to flush air from the sheath. DiCaprio teaches a device for delivering a stent having a valve 34 that allows air to be forced out of the lumen to prevent the possibility of an air embolism forming. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Heyn to have a valve as taught by DiCaprio to allow air to be purged from the lumen.

***Response to Arguments***

7. Applicant's arguments, filed 1/22/10 with respect to the rejection(s) of claim(s) 11-20 under Frid in view of Gunderson have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, /a new ground(s) of rejection is made in view of Heyn.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA A. BOUCHELLE whose telephone number is (571)272-2125. The examiner can normally be reached on Monday-Friday 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on 517-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laura A Bouchelle  
Examiner  
Art Unit 3763

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Art Unit: 3763

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/Laura A Bouchelle/  
Examiner, Art Unit 3763

/Nicholas D Lucchesi/  
Supervisory Patent Examiner, Art Unit 3763